REMARKS/ARGUMENTS

Favorable reconsideration of this application, in view of the above amendments and the following remarks, is respectfully requested.

Claims 21-24 are pending in this application. By this amendment, Claims 21 and 23 have been amended. It is respectfully submitted that no new matter has been added.

In the outstanding Office Action, Claims 21-24 were rejected under 35 U.S.C. § 102(e) as being anticipated by Trikkonen et al. (U.S. 2004/0002364 A1, hereinafter Trikkonen).

Claim 21 recites, in part:

> determining, based on the received control information, a first weight for one of the plurality of information signals with respect to the plurality of antennas, and a second weight for another one of the plurality of information signals with respect to the plurality of antennas;
>
> generating a first operation result by multiplying the one of the plurality of information signals by the first weight, and generating a second operation result by multiplying the another one of the plurality of information signals by the second weight; and
>
> generating, based on the first operation result and the second operation result, a plurality of the output signals each corresponding to one of the plurality of antennas, and transmitting the plurality of the output signals to the system of the communication partner.

Claim 23 recites similar subject matter in device format. It is respectfully submitted that these features are neither disclosed by nor rendered obvious by Trikkonen.

Trikkonen is directed to a wireless communication system including a multiple input multiple output (MIMO) system.[1] In Trikkonen "one of said transmitters is arranged to transmit to one of the receivers, said one transmitter is controlled in dependence on the

[1] Paragraphs [0001] and [0006].

number of antennas of the transmitter and the number of antennas of the receiver."[2] Trikkonen determines at least one parameter of one transmitter, at least one parameter of a receiver, at least one parameter of a wireless environment and controls the transmitter to transmit to the receiver in dependence on the at least one determined parameter.[3]

In at least one embodiment, Trikkonen transmits a pilot or training signal from the base station 2 to the mobile station 3, the pilot or training signal is analyzed and the PRN information transmitted back to the base station 2 via an uplink 303.[4] Trikkonen states:

> Therefore in embodiments of the present invention space-time codes are produced and used to advantageously encode the modulated symbols in order to allow greater efficiencies in channel capacity to be exploited, while also allowing the created codes to be simply detected at the receiver.[5]

Trikkonen further states "[i]n order to transmit the number of antenna resources should be equal to or greater than the number of beams to be transmitted."[6] Trikkonen further describes pseudorandom beams[7] to create transmit diversity into a message by pseudorandomization.[8] Trikkonen therefore, uses "complex weight factor which features a phase factor which changes continuously (in other words performs a phase sweep) or discretely (performs phase hopping)."[9] Trikkonen adds "the complex weight factor w_b may be different for different antenna array elements."[10]

In the embodiment of FIG. 6, the base station controller circuitry allocates resources which "can be time division multiplex slots, frequency division multiplex slots, codes,

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[2] Paragraph [0014].
[3] Paragraph [0017]. See also Claim 31.
[4] Paragraph [0091] and Fig. 4a.
[5] Paragraph [0126].
[6] Paragraph [0129].
[7] Paragraph [0133].
[8] Paragraph [0134].
[9] Paragraph [0137].
[10] Paragraph [0140].

antennas."[11] In one embodiment, Resource Allocation Circuitry controller 157[12] controls the space-time controller 184[13] so that "matrix W effectively provides weights to the different beams which take into account for example the condition of the channel."[14]

Trikkonen however fails to describe determining a first weight for one of the plurality of information signals with respect to a plurality of antennas and a second weight for another one of the plurality of information signals with respect to the plurality of antennas. Trikkonen further fails to describe generating a first operation result by multiplying the one of the plurality of information signals by the first weight and generating a second operation result by multiplying the another one of the plurality of information signals by the second weight. Finally, Trikkonen fails to describe generating, based on the first operation result and the second operation result, a plurality of the output signals each corresponding to one of the plurality of antennas, and transmitting the plurality of the output signals to the system of the communication partner. Therefore, Trikkonen does not describe the features of Claims 21 and 23 described above. Thus, Trikkonen does not anticipate Claims 21-24.

Accordingly, it is respectfully requested that the rejections of Claims 21-24 be reconsidered and withdrawn, and that Claims 21-24 be found allowable.

Consequently, for the reasons discussed in detail above no further issues are believed to be outstanding in the present application and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance is earnestly solicited.

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[11] Paragraph [0307].
[12] See FIG. 3.
[13] See paragraph [0322].
[14] Paragraph [0322].

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below-listed telephone number.

Respectfully submitted,

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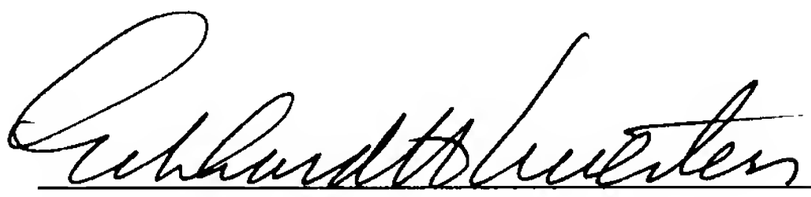

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